## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER NO. 96-133

REVISION TO SITE CLEANUP REQUIREMENTS AND RECISION OF ORDER NO. 93-136 FOR:

SOBRATO DEVELOPMENT COMPANY INPRINT CORPORATION 999 ARQUES CORPORATION

for the property located at

968-970 STEWART DRIVE SUBUNIT 2, STEWART DRIVE OPERABLE UNIT SUNNYVALE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Board), finds that:

- 1. Site Location and Description: The site is located at 968-970 Stewart Drive, Sunnyvale, Santa Clara County, near the intersection of U.S. Highway 101 and Lawrence Expressway (see attached site map). Currently the site is occupied by a one-story concrete tilt-up building surrounded by an asphalt parking lot and landscaping. Previously the site was utilized for raising row crops. The site is located in an area of low to flat relief approximately 5 miles south of San Francisco Bay. Areas surrounding the site are commercial, industrial, and residential.
- 2. Site History: Sobrato Development Company has owned the site at 968-970 Stewart Drive since 1979. In 1980, the site was developed with the construction of the concrete building. Inprint leased the western portion of the building while TRW/ESL leased the eastern portion. Inprint has utilized the site for commercial printing, photographic developing, and copying. Between 1980 and 1983, Inprint operated and maintained a 1000 gallon underground tank for temporary storage of used fountain solution and small amounts of isopropyl alcohol and glycerin.

Chemical compounds utilized in the printing and photographic development processes include adhesives, coatings (ink and varnish), sealers, and propellants. The adhesives, and possibly coatings, sealers and propellants, historically contained

chlorinated solvents. According to employees at Inprint, the 1,000 gallon underground storage tank was utilized to store wastewater comprised mainly of a wetting solution used in the printing process. Small amounts of glycerine, and possibly small amounts of isopropyl alcohol and photochemicals were also part of the wastewater. Wastes generated at the Inprint facility are regulated under RCRA.

Operable Unit and Subunits: In 1993 site cleanup requirements, the Board defined Operable Unit 2 (OU2) and four subunits within OU2. OU2 was defined to allow individual dischargers to proceed with investigation and cleanup independently of other dischargers, given evidence of possible commingling of groundwater pollution. The OU2 designation also reflected the possibility that groundwater pollution in this area was significantly commingled with groundwater pollution from federal Superfund sites in Operable Unit 1 (OU1), located to the south and east. As explained in a subsequent finding, further investigation did not find significant commingling between OU1 and OU2 so as to justify a boundary change or the naming of additional parties. Therefore, OU2 is redesignated as the Stewart Drive OU, and dischargers in the Stewart Drive OU are not required to comply with federal Superfund requirements.

The Stewart Drive OU consists of five subunits. Subunits 1-3 are sites which have been identified as sources of groundwater contamination; subunits 4 and 5 do not have any identified sources of contamination, but are impacted by sources on Subunits 1 and 3. Subunit 1 consists of the 999 Arques Corporation site at 999 East Arques Avenue, and the southwestern portion of the CAE site located at 1077 E. Arques Avenue. Subunit 2 consists of the Sobrato Development site located at 968-970 Stewart Drive in Sunnyvale. Subunit 3 consists of the northern portion of the CAE site. Subunit 4 (formerly designated as the large area north of subunits 1, 2, and 3), consists of the area north of the subunit 3. Subunit 5 consists of the area north of subunits 1 and 2.

It is the Board's intent that, commingling notwithstanding, the dischargers named for each subunit are largely responsible for soil and groundwater pollution in their respective subunit. As additional information is generated in each subunit, the Board may modify the dischargers named in each subunit, or the subunit boundaries. The northern boundaries of subunits 4 and 5 may be extended, contingent upon further definition of the lateral extent of groundwater contamination,

4. Named Dischargers: M/A-COM, Ametek, and NEM have settled all disputes among them regarding the pollution at and emanating from the 999 East Arques site, and have jointly formed the 999 Arques Corporation. The 999 Arques Corporation has assumed full responsibility for meeting all cleanup requirements and hereinafter is referred to as a discharger.

The Board recognizes the 999 Arques Corporation to be the party primarily responsible for meeting the requirements of this Order. Should the 999 Arques

Corporation fail to comply with the prohibitions, specifications, and provisions of this Order, the Board will consider adding M/A-COM, Inc., Ametek, Inc., and NEM to this Order as dischargers.

The Board recognizes Sobrato Development Company, as the owner of the 968-970 Stewart Drive site, and Inprint Corporation, as the property tenant and operator of the underground storage tank, to be dischargers responsible for meeting the requirements of this Order. Sobrato Development Company and Inprint are named as dischargers because a release at the site has contributed to groundwater contamination in subunit 2.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the state, the Board will consider adding that party's name to this order.

- 2 5. Regulatory Status: The site is subject to the following Board orders:
  - o Revised Site Cleanup Requirements Order No. 93-136 adopted October 20, 1993 o NPDES Permit Order No. 94-087 adopted July 20, 1994

The purpose of this order is to update the Site Cleanup Requirements to include tasks necessary to prepare for subunit 2 to provide consistency and coordination with the Remedial Action Plans for the other subunits of the Stewart Drive Operable Unit.

- 6. Site Hydrogeology: The area in the vicinity of subunit 2 is underlain by unconsolidated alluvial channel and overbank deposits of clay, silt, sand, and gravel. The deposits are of variable thickness and laterally discontinuous. The uppermost deposits have been subdivided into four general aquifer (water producing) zones, designated as the A, B1, B2, and B3 aquifers. The aquifers are separated by semi-permeable to relatively impermeable saturated zones (aquitards), ranging from 5 to 20 feet thick. The unconfined, shallow A aquifer is generally encountered at a depth of 10 to 20 feet below the ground surface. The confined B1, B2, and B3 aquifers are generally encountered between 20 to 45 feet, 45 to 60, and 70 to 80 feet, respectively, below ground surface. Groundwater flows preferentially through channelized coarse-grained deposits within each aquifer. The groundwater gradient within the A and B aquifers in the area is generally toward the north-northeast.
- 7. Remedial Investigation: Relatively low levels of PCE and TCE were detected in soil samples obtained from an underground tank pit in July 1984. Benzene, toluene, and methylene chloride were also detected in the samples. Significantly higher levels of soil pollution were detected in soil samples obtained from borings in the southeastern portion of subunit 2, adjacent to the 999 E. Arques site. Investigations indicate that soil contamination in subunit 2 is the result of a release at subunit 2 and volatization of migrating contaminants from Subunit 1.

Groundwater in subunit 2 has been impacted with up to 6500 ppb total VOCs. Contaminants detected in Subunit 2 include TCE, PCE, 1,1,1-trichloroethane (TCA), 1,2-dichloroethylene (1,2-DCE), and Freon 113. Investigations indicate that the groundwater contamination in subunit 2 is largely the result of releases at subunit 1. Subunit 1 contamination has migrated northward, impacting both the A- and B1-aquifer in subunit 2, as well as the A- and B1-aquifers in subunit 5. A small PCE plume has also been observed extending from the area of the former underground tank in subunit 2. The PCE plume, which does not appear to extend off-site, is limited to the A-aquifer; PCE concentrations are less than 100 ppb. Additional future investigation may modify or confirm present conclusions about relative contribution from upgradient dischargers.

8. Interim Remedial Measures: In 1984 the 1,000 gallon underground tank was removed from the site. Minor amounts of contaminated soil were also removed. In January 1996, one groundwater extraction well was installed on the site by 999 Arques Corp. to address VOC contamination migrating onto Subunit 2 from Subunit 1. The well is currently extracting and treating groundwater at a rate of 640 gallons per day. The effectiveness of the remedial measures on subunit 2 needs to be further evaluated in order to determine whether source-area groundwater cleanup is sufficient, and to verify that the measures are consistent and coordinated with Remedial Action Plans for the other subunits of the Stewart Drive OU.

Remedial measures need to be continued at this site to reduce the threat to water quality, public health, and the environment posed by the discharge of waste and to provide a technical basis for evaluating and coordinating final remedial measures for the other subunits of the Stewart Drive OU. At a later time, a subunit 2 remedial action plan will need to be proposed and implemented.

9. Adjacent Sites: In addition to the Stewart Drive OU sites, several other sites are located in the area which are also sources of soil and/or groundwater pollution. Immediately east and adjacent to and south of the Stewart Drive OU is Operable Unit 1 (OU1), which consists of two federal Superfund sites. OU1 includes the National Semiconductor Corporation (NSC) site at 2900 Semiconductor Drive, the former United Technologies Corporation (UTC) site at 1050 E. Arques Avenue, the Advanced Micro Devices site at 1165 E. Arques Avenue, and the commingled areas extending downgradient of the sites. Final Remedial Action Plans (RAPs) for the facilities in OU1 were adopted by the Board in September 1991. As with the Stewart Drive OU, OU1 is divided into subunits.

Investigations conducted in OU1 and the Stewart Drive OU in 1994 and 1995 indicate that groundwater contamination originating from both Operable Units is commingled along the area of the common OU1/Stewart Drive OU boundary. However, the location of the boundary approximates the extent of significant contamination originating within each Operable Unit. Groundwater contamination originating in

OU1 is largely limited to the area of OU1; groundwater contamination originating in the Stewart Drive OU is largely limited to the area of the Stewart Drive OU.

Sites southwest of the Stewart Drive OU include: the Schlumberger Technologies Corporation, located at 974 East Arques Avenue; Sunnyvale Corporation Yard, located at 221 Commercial Street; Pilkington Barnes Hind, located at 895 Kifer Road; and Mohawk Laboratories, located at 932 Kifer Road. The board has adopted orders requiring further characterization and cleanup of groundwater for these sites. The Board intends to update existing orders and adopt new orders for sites as appropriate. Should additional information generated for these and other facilities in the area indicate significant groundwater pollution commingling across the Stewart Drive OU boundary, the Board may revise this Order to modify the OU boundary or the dischargers named in this Order.

10. Basin Plan: The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

The potential beneficial uses of groundwater underlying and adjacent to the site include:

- a. Municipal and domestic water supply
- b. Industrial process water supply
- c. Industrial service water supply
- d. Agricultural water supply

At present, there is no known use of groundwater underlying the site for the above purposes.

11. Other Board Policies: Board Resolution No. 88-160 allows discharge of extracted treated groundwater from site cleanups to surface water only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

12. State Water Board Policies: State Water Board Resolution No. 68-16, "Statement of

Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Non-background cleanup levels must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives.

State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

- 13. **Preliminary Cleanup Goals:** The dischargers will need to make assumptions about future cleanup standards for soil and groundwater, in order to determine the necessary extent of remedial investigation, interim remedial actions, and the draft cleanup plan. Pending the establishment of site-specific cleanup standards, the following preliminary cleanup goals should be used for these purposes:
  - a. Groundwater: Applicable water quality objectives (e.g. maximum contaminant levels, or MCLs) or, in the absence of a chemical-specific objective, risk-based levels (e.g. drinking water equivalent levels).
  - b. Soil: 1 mg/kg total volatile organic compounds (VOCs), 10 mg/kg total semi-volatile organic compounds (SVOCs), and background concentrations of metals.
- 14. **Basis for 13304 Order:** The dischargers have caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.
- 15. Cost Recovery: Pursuant to California Water Code Section 13304, the dischargers are hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.
- 16. CEQA: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.
- 17. Notification: The Board has notified the dischargers and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site

cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

18. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers (or their agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

### A. PROHIBITIONS

- 1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.
- 2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
- 3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

#### B. TASKS

1. FINAL REMEDIAL ACTION PLAN

COMPLIANCE DATE: May 25, 1999

Submit a report acceptable to the Executive Officer containing:

- a. Re-evaluation of the installed interim remedial actions, including a summary of existing monitoring data and verification that the source control measures are effective in preventing migration of high VOC concentrations;
- b. Feasibility study evaluating alternative final remedial actions;
- c. Risk assessment for current and post-cleanup exposures;
- d. Recommended final remedial actions and cleanup standards;
- e. Recommended modifications to the existing remedial measures, if needed; and
- f. Implementation tasks and time schedule for any modifications to the remedial measures.

Item b should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

To the degree such guidance is applicable, items a through c should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code Section 25356.1(c), and State Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

- 2. **Delayed Compliance**: If the dischargers are delayed, interrupted, or prevented from meting one or more of the completion dates specified for the above tasks, the dischargers shall promptly notify the Executive Officer and the Board may consider revision to this Order.
- 3. Report Consolidation: Technical reports submitted to comply with the above tasks may be combined with analogous reports for other subunits of the Stewart Drive OU (e.g. Remedial Action Plan covering more than one subunit), provided that the combined report fully addresses the task for this subunit.

#### C. PROVISIONS

- 1. No Nuisance: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).
- 2. Good O&M: The dischargers shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.
- 3. Cost Recovery: The dischargers shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the dischargers over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

- 4. Access to Site and Records: In accordance with California Water Code Section 13267(c), the dischargers shall permit the Board or its authorized representative:
  - a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
  - b. Access to copy any records required to be kept under the requirements of this Order.
  - c. Inspection of any monitoring or remediation facilities installed in response to this Order.
  - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the dischargers.
- 5. Self-Monitoring Program: The dischargers shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer. Reports submitted to comply with this provision may be combined with analogous reports for other subunits of the Stewart Drive OU, provided that the combined report fully addresses the Self-Monitoring Program requirements for this subunit.
- 6. Contractor/ Consultant Qualifications: All hydrogeologic documents (plans, specifications, and reports) shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.
- 7. Lab Qualifications: All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).
- 8. **Document Distribution**: All correspondence, technical reports, and other documents pertaining to compliance with this Order shall be sent to the attention of the designated Board staff person. Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:
  - a. City of Sunnyvale, Department of Public Safety

- b. County of Santa Clara, Department of Environmental Health
- c. Santa Clara Valley Water District
- 9. Reporting of Changed Owner or Operator: To the extent practicable, the dischargers shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.
- 10. Reporting of Hazardous Substance Release: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the dischargers shall report such discharge to the Regional Board by calling (510) 286-1255 during regular office hours (Monday through Friday, 8:00 to 5:00).

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

- 11. Rescission of Existing Order: This Order rescinds Order No. 93-136.
- 12. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary. The dischargers may request revisions and upon review the Executive Officer may recommend that the Board revise these requirements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 18, 1996.

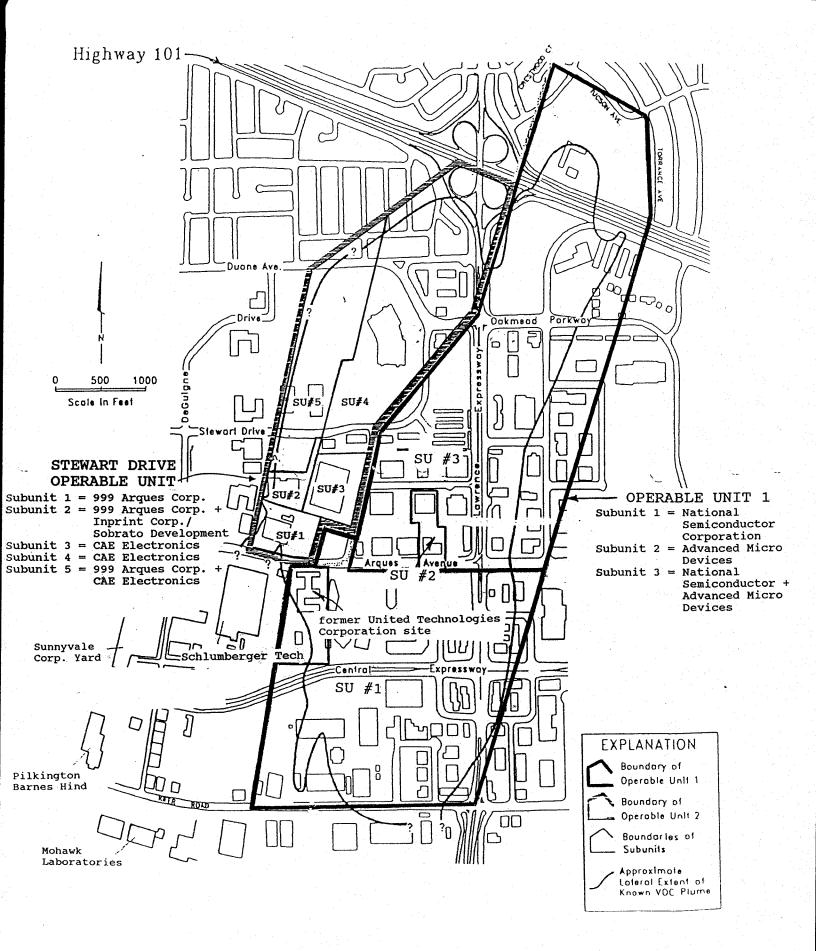
Loretta K. Barsamian Executive Officer \_\_\_\_\_\_

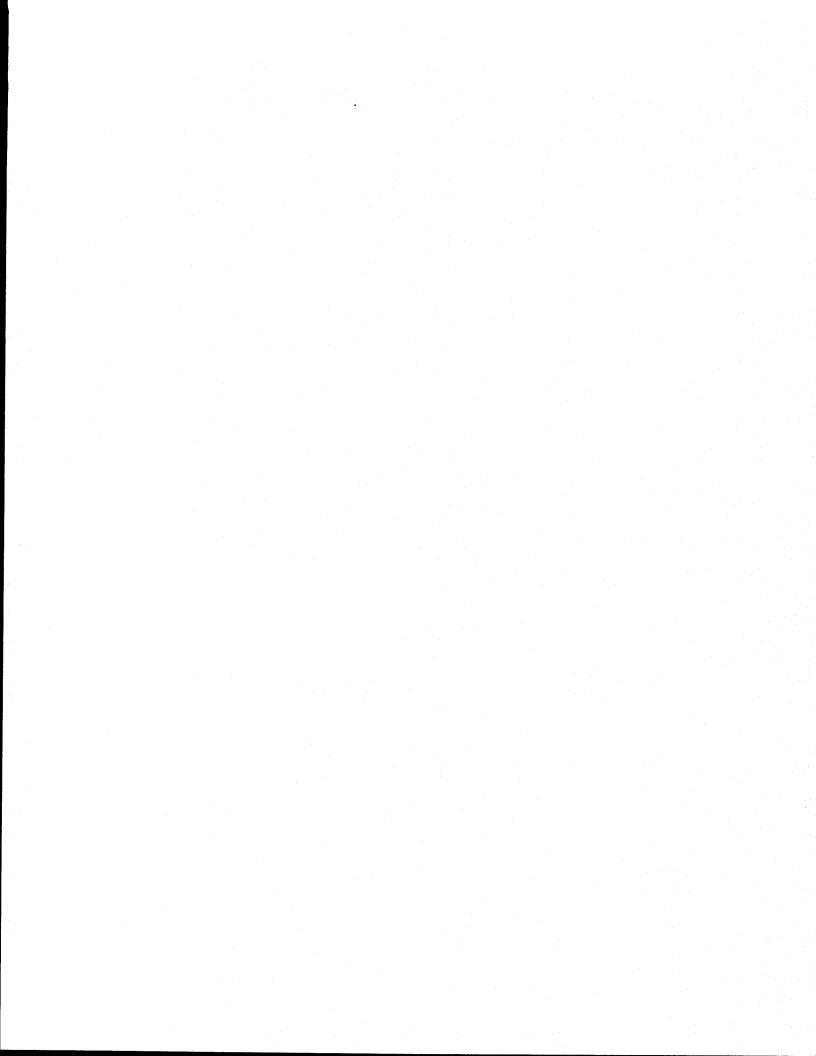
FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13267 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

Attachments: Site Map

Self-Monitoring Program







# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

SOBRATO DEVELOPMENT COMPANY INPRINT CORPORATION 999 ARQUES CORPORATION

for the property located at

968-970 STEWART DRIVE SUBUNIT 2, STEWART DRIVE OPERABLE UNIT SUNNYVALE, SANTA CLARA COUNTY

- 1. Authority and Purpose: The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 96-133 (site cleanup requirements).
- 2. **Monitoring**: The dischargers shall measure groundwater elevations semi-annually in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
E1	SA	8010	ARQ19	SA	8010
E2	SA	8010	ARQ20	SA	8010
E3	SA	8010	LF33	SA	8010
MW-1	SA	8010	LF34	SA	8010
MW-2	SA	8010			

SA = Semi-Annually

8010 = EPA Method 8010 or equivalent

A = Annually

The dischargers shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. The dischargers may propose changes in the above table; any proposed changes are

subject to Executive Officer approval.

- 3. Semi-Annual Monitoring Reports: The dischargers shall submit semi-annual monitoring reports to the Board no later than 30 days following the end of the second and fourth quarters (e.g. first semi-annual report due January 30, 1997). The reports shall include:
  - a. Transmittal Letter: The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the dischargers' principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
  - b. Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations should be included with each semi-annual report.
  - c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used and detection limits obtained for each reported constituent. Historical groundwater sampling results shall be included in each semi-annual report. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping below).
  - d. Groundwater Extraction: If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the reporting period. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the reporting period. Historical mass removal results shall be included in each semi-annual report.
  - e. Status Report: The semi-annual report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following half-year.
- 4. Violation Reports: If the dischargers violate requirements in the Site Cleanup Requirements, then the dischargers shall notify the Board office by telephone as soon

as practicable once the discharger has knowledge of the violation. Board staff may, depending on violation severity, require the discharger to submit a separate technical report on the violation within five working days of telephone notification.

- 5. Other Reports: The dischargers shall notify the Board prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.
- 6. Record Keeping: The dischargers or their agents shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination.
- 7. SMP Revisions: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the dischargers. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on September 18, 1996.

Loretta K. Barsamiar Executive Officer

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